

Notice of Allowability

Application No.

10/529,583

Examiner

Louis J. Casaregola

Applicant(s)

SANDELIS ET AL.

Art Unit

3746

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☐ This communication is responsive to ____.
2. ☒ The allowed claim(s) is/are 5-10.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☒ None of the:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: ____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date ____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date ____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date ____
- ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
- ☐ Notice of Informal Patent Application
- ☐ Interview Summary (PTO-413), Paper No./Mail Date ____
- ☐ Examiner's Amendment/Comment
- ☒ Examiner's Statement of Reasons for Allowance
- ☐ Other ____

Reasons For Allowance

The invention in this case is a turbine engine combustion chamber having angled holes for cooling air in the chamber's base section. The use of cooling air holes in combustor base or dome sections is well known in the turbine engine field as shown, for example, by the various references listed on the attached Forms PTO-892 and 1449. None of the references of record, however, disclose or fairly suggest an annular combustion chamber having the claimed combination of features including: external and internal axial walls, a chamber base linking the walls, injection ports in the base for fuel, and holes in the base for cooling air, wherein the base has an external portion with holes directing air toward the external wall and an internal portion with holes directing air toward the internal wall, and wherein the holes are arranged along decreasing angles relative to a median line as specifically described in claim 1, lines 12-20.

It is additionally noted that a patent listed on Form PTO-1449 (Sampath et al) was cited in the search report for the parent PCT application as an "X" category reference. Sampath has been carefully reviewed but does not, however, appear to disclose or suggest all pertinent features of the present invention. Sampath shows a series of base plate air holes (Fig. 9) with an angular variation that looks similar to that of the holes in the present invention. Sampath's holes, however, are angled differently than the claimed holes; compare Sampath's cutting plane line 9-9 (Fig.8) with cutting plane

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line III-III (Fig. 2) in the current application. Sampath's air holes thus do not meet all limitations of the air hole in the present claims.

For the reasons discussed above, the claimed invention is considered patentable over the prior art.



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If repeated attempts to reach the examiner by telephone are unsuccessful, the art unit supervisor, Anthony Stashick, can be reached at 571-272-4561.

Information regarding the status of this application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR, and status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).